Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of:	)	
	)	
Fostering Innovation and Investment in the	)	
Wireless Communications Market	)	GN Docket No. 09-157
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51

COMMENTS OF TELECOMMUNICATIONS MANUFACTURER COALITION

Our companies, which make products for communications services, including broadband, submit these Comments in order to discuss one narrow issue in response to the FCC's request for suggestions about what regulatory policies should exist in order to promote investment and innovation in wireless communications networks.[1] The point we make is that any benefit from re-regulating the price of ILEC-provided copper-based TDM transmission service (i.e., "special access service"), as some of proposed, is outweighed by the risk to investment and innovation in point-to-point transmission, including mobile backhaul.[2] The impact of regulatory policy on backhaul investment and innovation is an important issue since U.S. mobile carriers now spend about 30 percent of their annual operating budgets on backhaul.[3] Moreover, the position of manufacturers on the impact of regulatory policy on investment and innovation in point-to-point

[1] Notice at ¶ 11 ("we seek comment on . . . deterrents to wireless innovation and investment, and what the Commission can do to reduce or eliminate them", and "we seek comment on the impact of regulatory certainty and regulatory flexibility on innovation and investment, and how the Commission should consider those impacts in crafting regulations"); ¶ 50 ("what policies should the Commission adopt to facilitate deployment of 4G technologies?"); and ¶ 57 ("we inquire into . . . whether the Commission should take any action to facilitate" innovation in the "market for mobile wireless applications").

[2] Mobile backhaul connects mobile carrier cell sites with mobile switching centers.

[3] Om Malik, "How the iPhone Is Driving a Wireless Bandwidth Boom" at 2 (The GigaOm Network, Sept. 2, 2009), avail. at http://gigaom.com/2009/09/02/how-the-iphone-is-driving-a-wireless-bandwidth-boom/

transmission is entitled to special weight since, as the D.C. Circuit has recognized, "[f]irms that sell goods and services that are *inputs* to the production and use of. . . services [such as mobile backhaul and other point-to-point transmission] stand to gain an expanding market" from new investment and innovation and thus have an "incentive to make a completely unbiased judgment on the matter."[4]

DISCUSSION

Since early 2005, the FCC has been examining the impact on the point-to-point transmission market of the agency's decade-long policy of giving price cap-regulated ILECs flexibility to set prices for their copper-based TDM point-to-point transmission service (*i.e.*, special access service) in geographic areas the agency finds are subject to competition from other providers of similar service.[5] The five-year-long investigation is prompted in large part by a few mobile carriers (most notably Sprint) who have asked the Commission to mandate a large decrease in the price ILECs charge for special access service in those areas on grounds that, contrary to the Commission's ten-year old finding, today's prices are substantially above the ILECs' cost of providing service.[6] Mobile carriers use point-to-point broadband transmission for backhaul.

We urge the Commission in this case not to reinstate price regulation of ILEC-provided special access service because, as discussed below, we believe the risk created by requiring ILECs substantially to lower their special access prices would exceed the benefit. In the past, the

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4 *U.S. v. Western Elec.*, 993 F.2d 1572, 1582 (D.C. Cir. 1998).

5 *See* Notice of Proposed Rulemaking in Dkt. No. WC-05-25, Special Access Rates for Price Cap Local Exchange Carriers, 20 FCC Rcd. 1994 (2005).

6 *See, e.g.*, Sprint Comments at 8-34 (GN Dkt. No. 09-51, filed June 8, 2009) ; T-Mobile Comments at 6-15 (WC Dkt. No. 05-25, filed Aug. 8, 2007).

Commission has declined to adopt similar regulations where the risks of doing so exceed benefits.[7]

With regard to benefit, we believe any theoretical benefit of mandating big price reductions in special access service would be speculative and short-lived. Of course, cost-based pricing is beneficial because it avoids market distortions. But any benefit that might result from seeking to determine cost-based special access prices is speculative since there is irreconcilable disagreement over the almost impossibly complex question of how to determine whether prices are in fact cost-based. This is because there are nearly as many theories for how to determine cost-based pricing for telecom service as there are pricing theorists. As a result, although we believe it is likely, based on substantial record evidence of competition in the point-to-point transmission market,[8] that the price charged today by ILECs for special access service *already is* based on cost, there is a huge risk that the Commission would unintentionally mandate price reductions that were below the actual cost of providing service if it chose to re-enter the price regulation business. Any benefit resulting from government-mandated price decreases would be short-lived in any event since the question of whether today's special access prices are cost-based is becoming less and less important with each passing month given that wireless carriers, one of the largest users of special access and the most vocal critic of special access pricing, are

[7] *See, e.g., U.S. Telecom Ass'n v. FCC*, 359 F. 3d 554, 580 (D.C. Cir. 2004) (holding that it is lawful notwithstanding the resulting injury to ILEC competitors, for the Commission not to require UNE unbundling if mandatory unbundling "would impose excessive impediments to infrastructure investment").

[8] *See, e.g.*, USTelecom, "High-Capacity Services: Abundant, Affordable, and Evolving", July 2009 (filed July 16, 2009 in Dkt. No. 0525).

rapidly replacing special access circuits with Ethernet circuits, as the following graph from Infonetics Research illustrates:

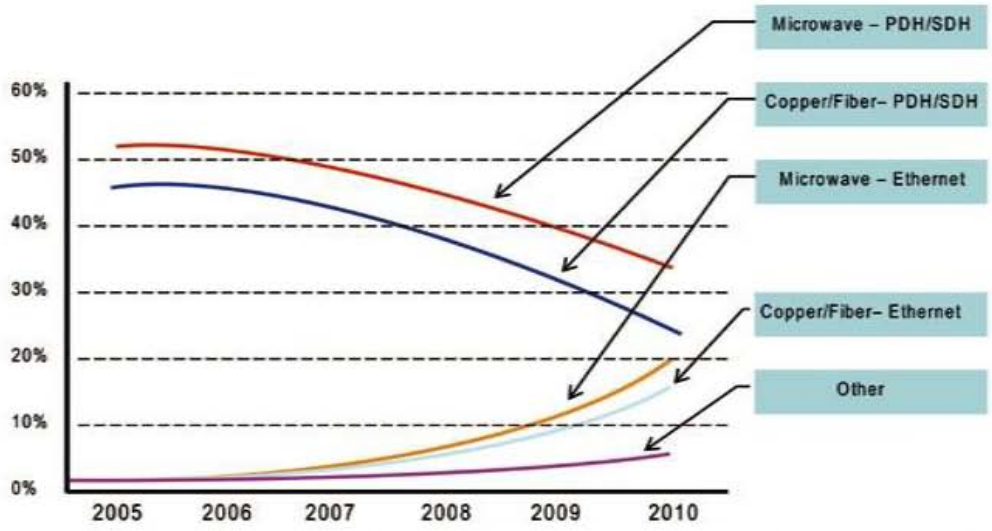

Figure 2 - Global Trends in Backhaul Implementation/Transport
(source: Infonetics Research – Mobile Backhaul Equipment 2007)

Heavy Reading reports that in North America alone, mobile carrier use of special access circuits for backhaul will decrease from 74 percent of cell sites in January 2009 to just 43 percent in January 2013.[9] And ABI Research reports that Ethernet-over-fiber will become the primary backhaul technology in North America within roughly four years.[10]

While any benefit of mandating big price reductions for special access circuits necessarily would be highly speculative and short lived, we believe the risk is more concrete. The risk is that requiring price decreases for the ILECs' special access services that resulted unintentionally in below-cost pricing would harm investment and innovation in that it would slow the transition from legacy, copper-based TDM special access transmission to the new generation of far more sophisticated fiber, copper, and wireless-based Ethernet transmission.

[9] Heavy Reading, "Ethernet Backhaul Quarterly Market Tracker" (Mar. 2009), reprinted in the attachments to a letter dated Sept. 24, 2009 to the Commission from XO Communications and filed in GN Dkt Nos. 09-29, 09-47, and 09-51.

[10] ABI Research, "Mobile Backhaul-Global Market Analysis and Forecast" (April 2009).

The transition would be slowed because substantially cheaper special access prices would mean that the price of more sophisticated Ethernet transmission would need to be substantially lower than today's market-based price before a mobile carrier could justify economically replacing special access circuits with Ethernet circuits. Slowing the transition to Ethernet technology would slow investment and invocation since the development of Ethernet transmission technology by independent companies desiring to provide Ethernet services to ILECs and mobile carriers would be slowed.

The Chief Technology Officer of Sprint and the Senior Vice President of Engineering for T-Mobile both have admitted that re-regulating the price of special access could slow innovation and investment in both fiber and wireless point-to-point Ethernet transmission technologies. According to Sprint's CTO, for example, even the "relatively abundant and inexpensive T-1 [special access] lines [that exist today] have stifled [use of Ethernet] technology [in the U.S.][11]" It goes without saying that if Sprint's CTO believes that today's special access prices have "stifled" the transition to Ethernet transmission, substantially lower special access prices will "stifle" the transition even more. Similarly, T-Mobile's Senior VP of Engineering testified during a recent FCC hearing that the only "significant bottleneck I see out there over time [for wireless carriers] is [the availability of sufficient] spectrum. . . . [While] "backhaul today is a big challenge . . . I think we're all attacking that [in ways] that . . . moves us into a cost structure very early on which enables us . . . to grow our customer base . . . effectively over time."[12] If T-Mobile's engineering Senior VP believes that today's market-based point-to-point

[11] Stephen Lawson, "Sprint picks wireless backhaul for WiMax" (IDG News Service, July 9, 2008), avail. at http://www.thestandard.com/news/2008/07/09/sprint-picks-wireless-backhaul-wimax (quoting Sprint CTO Barry West).

[12] Testimony of Neville Ray, Nat'l Broadband Plan Workshop: Wireless Broadband Deployment – General, Transcript at 68-69 (Aug. 12, 2009).

transmission price structure will produce economically rational results, government-dictated pricing which deviates from market pricing plainly will not.

The claim that substantially lower prices for special access transmission somehow would lead to *more* investment in fiber and microwave IP Ethernet transmission[13] is irrational on its face. Indeed, the fact that mobile operators use far more microwave transmission for backhaul in Europe, where special access transmission service is more expensive than here,[14] is evidence that innovation and investment in point-to-point transmission would be *reduced*, not *stimulated*, by a new FCC policy requiring ILECs to substantially lower the price they charge for based special access service.

Nor is there merit in the claim that investment and innovation in broadband point-to-point transmission cannot increase as long as mobile carriers must use their limited cash to lease ILEC-provided special access, a circumstance that would be eliminated if the FCC were to mandate big price reductions for special access service. [15] This is because there already is a tremendous amount of investment and innovation in Ethernet transmission today,[16] and the vast majority of that innovation and investment comes from microwave carriers, fiber optic providers, cable TV companies, and other non-mobile carriers.

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[13] Sprint Comments at 9, 23 (GN Dkt. No. 09-51, filed June 8, 2009) (claiming that special access pricing is "thwarting innovation and investment by discouraging alternative providers from offering new [broadband transmission] products and services or expanding the scope of existing offerings").

[14] E. Bock, "Backhaul for WiMAX & LTE: High Bandwidth Ethernet Radio Systems" at 22, Microwave Journal, Int'l Ed. (Nov. 2008) (stating that "[w]ireless implementation of metro backhaul . . . [has] long dominated in Europe. In North America, however, more TDM copper backhaul has been historically employed primarily as a result of the low cost ILEC T1 TDM [special access] circuits available [here])."

[15] Comptel letter dated May 18, 2009 at 4 (filed in WC Dkt. No. 05-25).

[16] Infonetics has reported that worldwide investment in wireless backhaul alone rose 19 percent in 2008, reaching $4.6 billion, and it predicts that wireless backhaul investment will approach $11 billion by 2013, more than double the 2008 investment figure. Sean Buckley, "Infonetics: IP/Ethernet backhaul is an evolution, not a revolution" (Fierce Telecom, Aug. 12, 2009), avail. at www.fiercetelecom.com/story/infonetics-ip-ethernet-backhaul-evolution-not-revolution/2009-08-12.

CONCLUSION

The Commission should not re-instate price regulation of ILEC-provided special access service because any speculative and short lived benefit from doing so is outweighed by the decrease in investment and innovation in point-to-point broadband transmission, including mobile backhaul, that likely would result.

Respectfully submitted,

CBM of America, Inc.
MRV Communications, Inc.
PECO II, Inc.
Sunrise Telecom, Inc.
Telesync, Inc.

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